

# **Hanford Long-Term Stewardship Program Plan**

**PRELIMINARY DRAFT**

**February 25, 2010  
Revision C**

# Long-Term Stewardship Program Plan Preliminary DRAFT

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## Acronyms

AIP	Agreement in Principle	LTS&M	Long-term Surveillance and Maintenance
AMCP	DOE-RL Assistant Manager Central Plateau	MSC	Mission Support Contract
AMMS	DOE-RL Assistant Manager Mission Support	NEPA	National Environmental Policy Act
AMRC	DOE-RL Assistant Manager River Corridor	NRD	Natural Resource Damages
BPA	Bonneville Power Administration	NRDA	Natural Resource Damage Assessment
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980	NRC	Nuclear Regulatory Commission
CFR	Code of Federal Regulations	O&M	Operation & Maintenance
CLUP	Comprehensive Land-Use Plan	OU	Operating Unit
CP	Central Plateau	PNNL	Pacific Northwest National Laboratory
DoD	Department of Defense	PNSO	Pacific Northwest Site Office
DOE	Department of Energy	RC	River Corridor
DOE-EM	DOE Office of Environmental Management	RCCC	River Corridor Closure Contract
DOE-LM	DOE Office of Legacy Management	RCRA	Resource Conservation and Recovery Act
DOE-RL	Department of Energy Richland Operations Office	RI/FS	Remedial Investigation/Feasibility Study
EIS	Environmental Impact Statement	RIMS	RL Integrated Management System
EPA	Environmental Protection Agency	RMPs	Resource Management Plans
ESD	Explanation of Significant Differences	ROD	Record of Decision
FFTF	Fast Flux Test Facility	S&M	Surveillance and Maintenance
FY	Fiscal Year	STF	Site Transition Framework
HAB	Hanford Advisory Board	TC&WM	Tank Closure and Waste Management
HCP-EIS	Hanford Comprehensive Land-Use Plan Environmental Impact Statement	TPA	Tri-Party Agreement
IC	Institutional Control	TSD	Treatment, Storage and Disposal
IM	Information Management	USFWS	United States Fish and Wildlife Service
ISMS	Integrated Safety Management System	WAC	Washington Administrative Code
LIGO	Laser Interferometer Gravitational Wave Observatory	WCH	Washington Closure Hanford
LTS	Long-term Stewardship	WDOE	Washington Department of Ecology
		WIDS	Waste Information Data System

## Chapter 1. Introduction

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Long-term stewardship (LTS) describes the Department of Energy's (DOE's) program for the protection of human health and the environment upon completion of the cleanup mission. The Hanford site includes three DOE program offices, the DOE Richland Operations Office (DOE-RL), Office of River Protection (ORP) for the DOE Office of Environmental Management (DOE-EM) and the Pacific Northwest Science Office (PNSO) for the DOE Office of Science (DOE-SC). While the PNSO operations occupy several facilities in the 300 area, DOE-RL is still responsible for final disposition of these facilities, once operations are no longer needed. ORP is responsible for the tank waste operations on the Central

Plateau and once ORP's mission is completed, the appropriate cleanup will be initiated. DOE-RL is responsible for LTS on the entire site once cleanup is complete. This will include the surveillance and maintenance (S&M) of the reactor cores and the Waste Treatment Plant site once cleanup is complete.

### Definition of Long-Term Stewardship

**Long-term stewardship** refers to all activities necessary to ensure protection of human health and the environment following completion of cleanup, disposal, or stabilization at a site or a portion of a site. Long-term stewardship includes all engineered and institutional controls designed to contain or to prevent exposures to residual contamination and waste, such as surveillance activities, record-keeping activities, inspections, groundwater monitoring, ongoing pump and treat activities, cap repair, maintenance of entombed buildings or facilities, maintenance of other barriers and containment structures, access control, and posting signs. *The Report to Congress: Long-Term Stewardship (US DOE, January 2001)*

### 1.1 Purpose of the Plan

The purpose of this *Hanford Long-Term Stewardship Program Plan* (LTS Program Plan) is to define DOE's long-term responsibilities; to maintain the protectiveness of the cleanup remedies being conducted in accordance with regulatory requirements; and to provide a framework for a site-wide LTS program to institutionalize LTS across the Hanford Site. DOE will institutionalize the LTS Program on the Hanford Site through DOE prime contracts and established procedures to govern and control LTS Program activities. The formal LTS program, with its own budget, will be flexible and dynamic allowing necessary changes to be incorporated as DOE better understands the requirements during and following final cleanup actions. The LTS Program Plan is developed to work in concert with other DOE-EM strategic planning documents, including recently developed cleanup strategy documents (see Chapter 2). The LTS Program Plan also serves as one of the implementing procedures and controls for the Hanford Comprehensive Land Use Plan (CLUP) (see Section 1.2).

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## 1.2 LTS Program Within the Framework of the Hanford Comprehensive Land Use Plan

The LTS Program Plan is one of the implementing procedures and controls (identified in Chapter 6) of the Final Hanford Comprehensive Land-Use Plan (HCP) Environmental Impact Statement (EIS) (DOE/EIS-0222-F) (DOE 1999a). The HCP-EIS adopted the CLUP for the Hanford Site in accordance with DOE's responsibilities under the Atomic Energy Act and pursuant to Congress's direction in the National Defense Authorization Act for Fiscal Year 1997 (Public Law 104-201, Section 3153). In September 1999 the DOE issued the Final HCP-EIS. In November 1999, DOE issued its Record of Decision (ROD) establishing the CLUP. In June 2008, the HCP-EIS underwent a review through a NEPA Supplement Analysis that resulted in an amended ROD on September 2008 to clarify two points: (1) that when considering land-use proposals, DOE will use regulatory processes in addition to the implementing procedures in Chapter 6 of the HCP-EIS to ensure consistency with CLUP land-use designation, and; (2) that DOE will continue to apply the process under HCP-EIS Chapter 6 to modify and amend the CLUP, as needed.

The four key objectives to the CLUP's implementation are as follows, which provide a comprehensive approach to address land-use activities and protect and manage unique resources of the site:

- A land-use map that depicts designated land uses for areas of the Hanford Site. The land use map supports full implementation of the DOE mission elements assigned to the Hanford Site.
- The land-use designations that define the purpose, intent, and principal use(s) of each geographic area shown by the final CLUP land-use map.
- The land-use policies that direct land-use actions. The policies help to ensure that individual land-use actions collectively advance the CLUP's goals and objectives over time.
- The land-use plan implementation procedures and controls, and administrative procedures are used to review and approve proposed land-use requests. In addition, these procedures are used to make recommendations on actions to be undertaken under the land-use plan to align and coordinate Hanford Site area and resource management plans, (e.g., Hanford Cultural Resource Management Plan, and Hanford Biological Resource Management Plan). The CLUP uses these types of plans as implementing procedures and implementing controls, so that land-use activities on the Hanford Site are consistent with and carry out the CLUP over time. This includes consideration and management of the land, facilities, infrastructure, and unique biological, natural, and cultural resources on the Hanford Site.

The LTS Program Plan serves as one of the management plans for the CLUP. The LTS Program Plan provides an integral part of implementing the CLUP by addressing post-cleanup activities. When evaluating land-use requests through the CLUP implementing procedures and

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controls, the LTS Program will provide important information to ensure protectiveness of the remedies and the environment. Like the LTS Program Plan, each of the management plans described in Chapter 6 of the HCP-EIS manage unique resources and key activities, but together provide a comprehensive approach for the management of land and facilities at the Hanford Site. The CLUP implements DOE Policy 430.1, Land and Facility Use Planning, to manage all of its land and facilities as valuable national resources and approach to stewardship. DOE's stewardship is based on the principles of ecosystem management and sustainable development, and as such, support the Department's critical missions, stimulate the economy (e.g., energy park initiative), and protect the environment.

## 1.3 Background

The DOE recognized the significance of LTS in the 1990's when it issued several reports that addressed cleanup and management of land upon completion of the cleanup mission at DOE sites (see Figure 1-1 for a listing of the reports). How DOE addressed LTS-related issues evolved through a series of reports and studies (as listed on the top half of the timeline shown in Figure 1-1), which continued to assist DOE in defining the program and ultimately culminated in the formation of the DOE Office of Legacy Management (DOE-LM) in 2004. DOE-LM is the DOE office that is responsible for conducting LTS activities at DOE sites where there is no longer a DOE-EM cleanup mission. Until the Hanford Site transitions to DOE-LM, the Hanford LTS Program will interface and be consistent with current DOE-LM policies and procedures to ensure a smooth transition. As identified by DOE-LM, when the Hanford Site cleanup mission is complete, the entire Hanford Site will transition from DOE-EM to DOE-LM for long-term surveillance and maintenance (LTS&M). At that time, any applicable Hanford Site permits and the management of land will be the responsibility of DOE-LM.

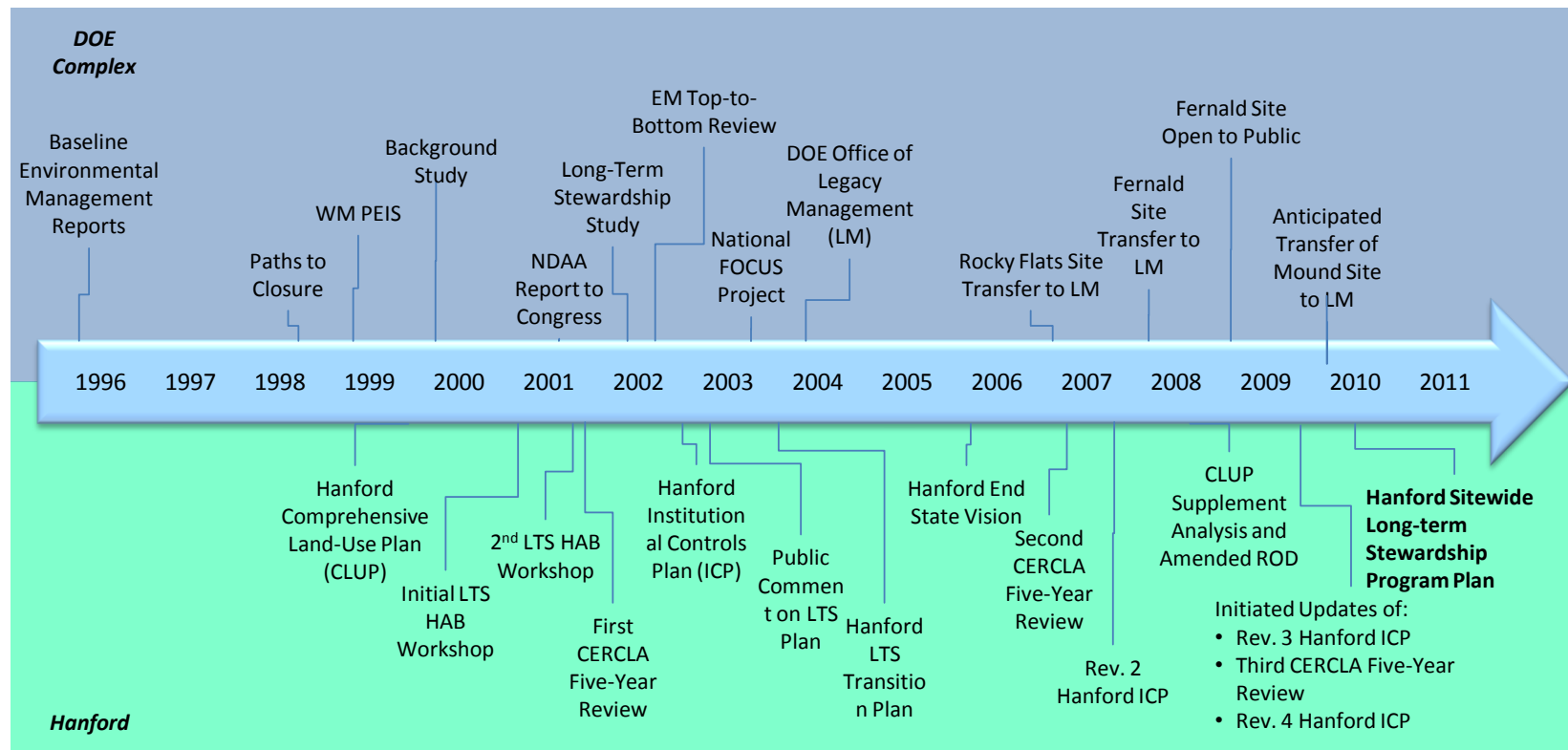
Important Hanford-specific LTS-related actions and documents are shown on the bottom half of the timeline in Figure 1-1.

At Hanford, the HCP-EIS identified the need to develop a Long-Term Stewardship Plan. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) documents also identified a need for an LTS related document - the *Hanford Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions* (Institutional Controls Plan). In response, DOE-RL prepared the *Hanford Long-term Stewardship Program and Transition: Preparing for Environmental Management Cleanup Completion* (Hanford LTS Transition Plan) in the 2001-2002 timeframe.

DOE-RL prepared this LTS Program Plan to move from transition planning to implementation of a sitewide LTS program. The LTS Program Plan builds off the foundation of these plans, replacing the Hanford LTS Transition Plan, as Hanford progresses from the planning for LTS into the implementation of the Program.

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Figure 1-1. Hanford LTS Timelines



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## 1.4 LTS at Hanford

Cleanup is completed for waste sites when the selected remedy cleanup objectives and goals are met, as defined by the applicable CERCLA or Resource Conservation and Recovery Act (RCRA) decision documents. The LTS program begins when cleanup is completed and is performed during the post-cleanup activities (see Figure 1-2) as described in the DOE-RL's *Hanford Site Cleanup Completion Framework<sup>1</sup> strategy document*. This includes activities such as the maintenance of the remedies, the maintenance of institutional controls, the conduct of the CERCLA five-year review and other LTS activities. This phase does not begin until after construction completion, remedial action completion and site completion (see text box below for definitions). However, in the case of construction of a ground water extraction and treatment system, LTS could begin once the system is proven to be operational and functional, prior to reaching remedy objectives. At that point, the LTS Program would be responsible for surveillance and maintenance of the groundwater treatment system.

**Construction Completion** – Occurs when any necessary physical construction is complete, whether or not final cleanup levels or other requirements have been achieved. Groundwater remediation (active as well as passive) may still be occurring at this stage. Construction completion status is achieved when a Preliminary Close Out Report is signed.

**Remedial Action Completion** – Occurs when remedial action objectives for an operable unit have been achieved and are documented in a Final Remedial Action Report or Interim Remedial Action Report for actions involving groundwater restoration.

**Site Completion** – Site completion status is achieved when a Final Close Out Report is signed; however, continuing CERCLA five-year review is still conducted, if required.

The LTS Program will be implemented using a graded approach. Remediated parcels or segments of land will transition into the LTS Program when their discrete cleanup activity is complete - instead of waiting until all land areas have been cleaned up. Section 2.1 provides information regarding the successive stages of cleanup.

The Hanford LTS Program consists of the management of the post-cleanup activities, as well as addressing the management of the Site's resources, such as the cultural, biological and natural resources, through the framework of the CLUP. The LTS Program includes the following objectives:

### Protectiveness of the Remedies

The first objective of LTS ensures the continued protectiveness of remedies for the long-term as defined by CERCLA and RCRA decision documents. There is a potential for sites to not be cleaned up to unrestricted use consistent with the final remedy. Some of the waste may remain in place for long durations (e.g., reactor cores, portions of waste sites that cannot be remediated at B-Reactor, or under critical utilities). In addition, some waste produced by past nuclear weapons production activities could be disposed in onsite, authorized disposal cells. Therefore,

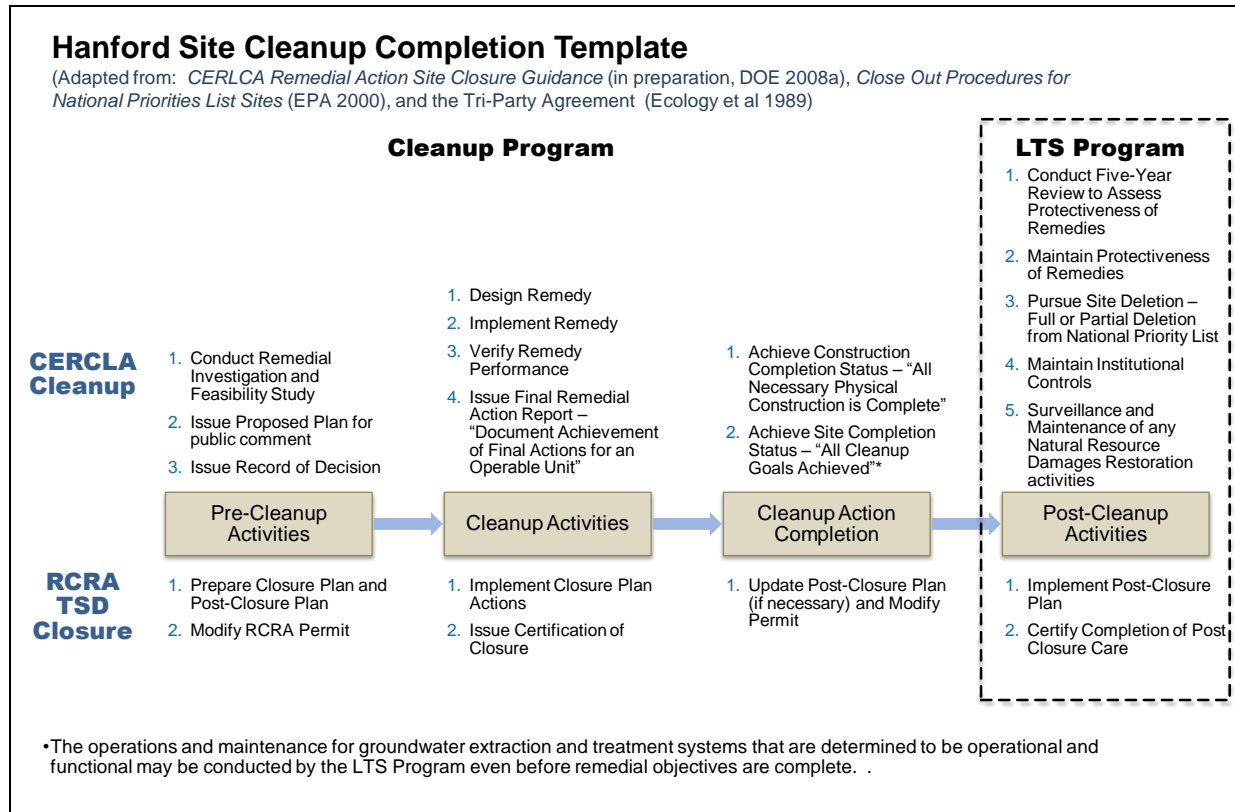
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<sup>1</sup> Hanford Site Cleanup Completion Framework , DOE/RL-2009-10, Draft B, August 2009

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the LTS Program will prepare for managing the risks associated with the residual contamination, including long-term surveillance and maintenance (S&M) of groundwater remedies.

**Figure 1-2. Hanford Site Cleanup Completion Phases**



## Protectiveness of the Resources and the Environment

The second objective of LTS includes the consideration of the unique biological, natural, and cultural resources on the land. These resources are managed at the Hanford Site by using CLUP-related Resource Management Plans and Area Management Plans as described in Chapter 6 of the HCP-EIS (see Chapter 2 for more information regarding these plans).

Examples include:

- Surface water, groundwater, land, natural gas, minerals and other natural resources
- Fish, wildlife, and plant populations and their habitats
- Prehistoric archaeological sites
- Native American sacred and ceremonial places
- Historical resources.

## 1.5 LTS Requirements

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DOE's obligations under the Atomic Energy Act and other federal laws as a major federal land management agency are the fundamental bases for the long-term stewardship program. The Department of Energy Organization Act of 1977 clarified Congressional intent related to DOE's environmental functions. It states:

*The Department of Energy, by consolidating environmental considerations and procedures...should provide an effective vehicle for identifying potential environmental, health, safety, socioeconomic, institutional, and control technology issues associated with technology development. It will provide a single, coordinated mechanism for determining necessity and timing of environmental impact assessments and environmental impact statements in order to respond to the needs of specific technologies or resources. It will ensure a complete and fully integrated program with respect to environmental, health and safety impact research and engineering applications.*

DOE LTS requirements are specifically defined in DOE Order 430.1B “*Real Property Asset Management*” and 450.1A “*Environmental Management Program*”. DOE Order 430.1B defines the need for planning for LTS and notes that LTS includes “... the physical controls, institutions, information, and other mechanisms needed to ensure protection of people and the environment where DOE has completed, or plans to complete, disposition”. DOE Order 450.1A requires the scope of the Environmental Management System to “...encompass the environmental aspects of site operations and activities, including environmental aspects of energy and transportation functions, and it must promote the long-term stewardship of a site’s natural and cultural resources throughout its design and construction, operation, closure, and post-closure life cycle.”

Additional sources of the key regulatory and DOE requirements related to LTS include the following:

- The Hanford Federal Facility Agreement and Consent Order (89-10) (Tri-Party Agreement) requires the establishment and maintenance of an administrative record for each operable unit and TSD (Treatment, Storage and Disposal) group that contains all of the documents containing information considered in arriving at a Record of Decision or permit. The Tri-Party Agreement (TPA) also requires the establishment and maintenance of the Waste Information Data System (WIDS), which identifies known and reported waste sites, and includes the type and location of the site, when the site was operated, general dimensions and description, general descriptions of waste placed at the site to include estimated quantities of radionuclides and chemicals contained in some units, and describes the current status of each unit. WIDS also includes information regarding completed waste sites, along with their required institutional controls.
- Remedial action objectives and other cleanup requirements are contained in CERCLA regulatory decision documents, including Records of Decision (RODs), ROD amendments, Explanation of Significant Differences (ESDs), and Action Memorandums. Controls also may be summarized in remedial action reports. LTS requirements from CERCLA decision documents may include institutional controls and the maintenance

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and monitoring of physical remedies. Further requirements may be specified in operations and maintenance (O&M) plans.

In enacting CERCLA, Congress intended to ensure the timely cleanup of contaminated sites and to place the cleanup costs on those responsible for the contamination. In addition to remediation of past releases, CERCLA also requires that injuries to natural resources resulting from certain past releases be identified and restored in a process known as Natural Resource Damage Assessment (NRDA). An NRDA is the process of collecting, compiling, and analyzing information to assess the extent of injury to a natural resource and determine appropriate ways of restoring and compensating for that injury. The LTS Program will be responsible for any surveillance and maintenance that may be required once any restoration activities have been completed. The LTS Program does not participate in the Natural Resource Damages (NRD) process; the LTS Program's activities begin once any NRD restoration activities have been completed.

- The RCRA post-closure permits and plans describe LTS requirements following the completion of cleanup. Such requirements may include maintaining institutional controls (e.g., fences, signs, and recording of a survey plat with the local government that indicates where hazards remain) and monitoring activities.
- Washington State Laws, embodied in the Washington Administrative Code (WAC), are identified as potentially applicable or relevant and appropriate requirements to establish cleanup levels. Any LTS requirements will be based on associated CERCLA, RCRA, and NEPA decision documents.

## 1.6 Content of the Plan

This LTS Program Plan defines the DOE approach to long-term stewardship for the Hanford Site and how it intends to meet its responsibilities to maintain the protectiveness of the cleanup remedies in accordance with regulatory requirements and protection of the resources and environment. Chapter 2 describes the planning for LTS needed to prepare for LTS and for the surveillance and maintenance (S&M) activities. Chapter 3 provides a discussion on the transition process and how DOE plans to manage this process. Chapter 4 defines the implementation of the LTS Program activities. In addition, Chapter 4 addresses how the program will manage its interfaces with the cleanup organizations and site contractors. It discusses how the program will address remedy failures, natural disasters and other contingency planning activities.

## 1.7 Revisions to this Plan

The Hanford LTS Program is a long-term program that is still in its infancy stage. DOE will build the Program to be dynamic, active and flexible to address issues as they arise, and incorporate lessons learned from the experiences of the Hanford LTS Program, as well as experiences of other sites. This plan is intended to serve as a living document that will be updated as the Program gains experience in conducting LTS activities, increasing its knowledge base from

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national and international resources, and as the LTS requirements from the cleanup program continue to be defined.

## Chapter 2. Planning for LTS

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LTS will begin for individual final remedy ROD areas of the Hanford Site on a graded approach as final RODs are issued and cleanup is completed. Interim S&M activities will begin for parcels at which cleanup is completed to interim action RODs. This chapter describes the planning to prepare for the initial startup of LTS and for the interim S&M activities.

### 2.1 LTS Will Begin Using a Graded Approach

LTS will begin for individual final remedy ROD Areas of the Hanford Site using a graded approach. This reflects the successive stages of cleanup described in Hanford's cleanup planning documents and as established by the 2015 Vision for the Site to reduce the active footprint cleanup by 85 to 90 percent by 2015. Individual ROD areas of the site will transition to the Hanford LTS Program beginning in the near-term as cleanup is completed. When cleanup is complete for all ROD Areas, the entire Hanford Site is expected to transition to the DOE-LM Program.

The Hanford Site cleanup consists of three major components: (1) River Corridor, (2) Central Plateau, and (3) Tank Waste. LTS requirements are determined through the CERCLA and RCRA cleanup program decision documents. Each component of cleanup is in itself a complex and challenging undertaking involving multiple projects, DOE and its contractor organizations, as parcels of land are cleaned-up and transitioned to the responsibility of the LTS Program.

The primary strategies for addressing these major components are described in the following plans (as of the writing of this document, these plans are in draft form):

- The *Hanford Site Cleanup Completion Framework* (DOE/RL-2009-10, Draft B, August 2009) provides a comprehensive description for completing Hanford's cleanup mission including the transition to post-cleanup activities. This document does not make or replace any regulatory decisions. The framework presented in the document provides the context for individual cleanup actions by providing the approaches and key guiding principles for those decisions needed to complete the cleanup mission. The document also includes a short section describing the LTS activities following the completion of cleanup.
- The *Central Plateau Cleanup Completion Strategy* (DOE/RL-2009-81, REV 0, September 2009) provides details regarding the geographic area cleanup strategy for the Central Plateau and addresses the key subject areas described in the associated Agreement-In-Principle (AIP).<sup>2</sup> The document also describes DOE's plans for decision-making and

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<sup>2</sup> The U. S. Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology) signed *Agreement in Principle, Negotiation of Hanford Federal Facility Agreement and Consent Order Revisions to Address CERCLA/RCRA Integration, Integration of Facility Disposition*

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implementation of Central Plateau cleanup, and describes anticipated changes that would be required to the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement or TPA) to implement the strategy.

In addition, the *Draft Tank Closure and Waste Management (TC & WM) Environmental Impact Statement (EIS) for the Hanford Site, Richland, Washington* (DOE/EIS-0391) analyzes tank closure, Fast Flux Test Facility (FFTF) decommissioning, and waste management and provides important information and analysis that will support cleanup.

To demonstrate the successive stages of Hanford Site completion, Figure 2-1 shows the six River Corridor geographic units for which RODs are being developed:

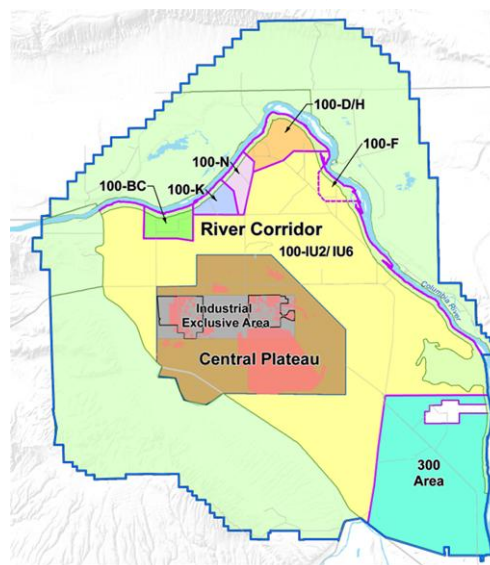
- 100 B/C Area
- 100-K Area
- 100-N Area
- 100-D and H Area
- 100-F Area combined with 100-IU-2/6 Areas
- 300 Area, including nearby 600 Area waste sites.

Most cleanup actions for the River Corridor are scheduled to be complete by 2015. However, some waste site cleanup associated with some major facilities will not be completed until after the facilities have been removed, e.g., waste sites associated with the 100 K Area.

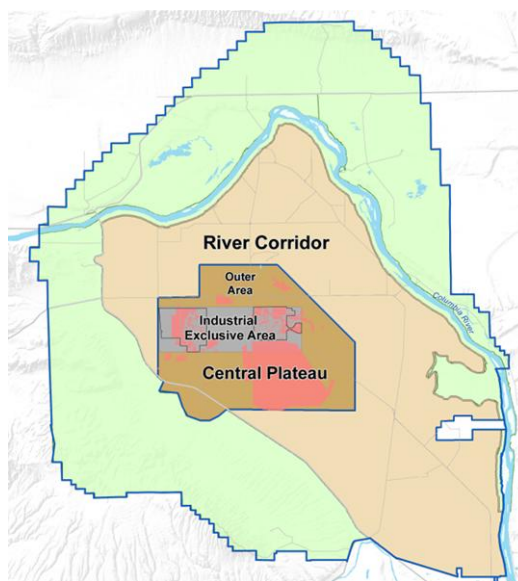
After completion of the River Corridor cleanup, the active cleanup footprint will be reduced to approximately 75 square miles (see Figure 2-2).

Figure 2-3 shows the Industrial-Exclusive Area and indicates DOE's intent to further shrink the active cleanup footprint. Completion of this next step – the cleanup of the outer area of the Central Plateau – will further reduce the active cleanup footprint to approximately 10 square

**Figure 2-1. River Corridor Cleanup is Underway**



**Figure 2-2. Active Cleanup Footprint Reduced to 75 Square Miles**



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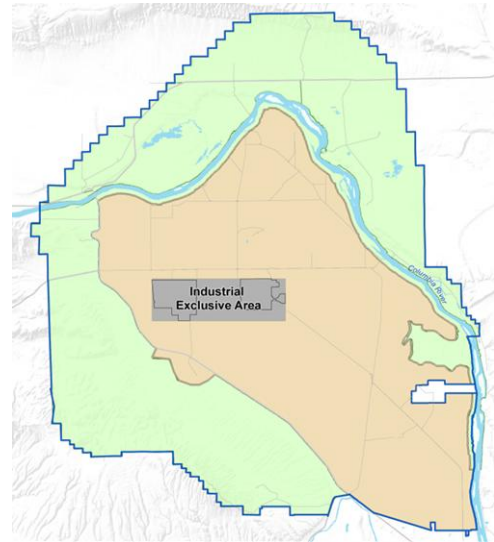
miles.

The final step in the graded approach will be to complete the cleanup of the Industrial Exclusive Area. When all remedial actions are complete for all Hanford lands, the LTS responsibilities for Hanford will be ready for transfer from DOE-EM to DOE-LM.

Prior to the completion of cleanup for a final remedy of a ROD Area, the LTS Program will begin to work with the cleanup projects to identify and define the cleanup completion schedule, the ROD Area's boundaries and its end state conditions, the required LTS activities, the estimated life-cycle costs for LTS of the ROD Area, and the related information and data that will be needed to support LTS for the ROD Area. The ROD Area then will be transitioned to the LTS Program, as described in Chapter 3.

Some parcels will require interim S&M prior to the development of the final remedy RODs. The responsibility for conducting the associated interim S&M activities may be transitioned to the LTS Program, prior to the development of the final remedy RODs. Interim S&M activities are described further in Section 2.4.

**Figure 2-3. Active Cleanup Footprint Reduced to Approximately 10 Square Miles**



## 2.2 LTS Activities

The LTS Program is comprised of a group of activities designed to ensure the continued protection of human health and the environment, and management and protection of important resources within the framework of the CLUP. The LTS Program includes the following:

- Conduct administrative activities
- Conduct S&M of the remedies and their institutional controls
- Conduct S&M of completed natural resource damages (NRD) restoration projects
- Conduct environmental monitoring and maintenance of the remedies
- Protect and manage Site resources
- Manage LTS information
- Conduct CERCLA Five-Year Reviews
- Prepare for emergencies, contingency planning, and corrective actions
- Manage post-cleanup completion infrastructure
- Ensure the safety and health of LTS workers
- Provide quality assurance
- Manage and budget necessary funding

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- Interface with other Hanford programs
- Interface with external entities
- Improve the LTS program continuously.

Chapter 4 describes the plan to implement these LTS Program activities.

## 2.3 LTS Program Checklist and Interim S&M Checklist

The LTS Program will utilize a transition checklist to ensure complete turnover of documentation so LTS can be properly managed. The LTS Program transition checklist must be completed prior to facilitate the transition of land management responsibilities from the cleanup program to the LTS Program. When cleanup is completed for a ROD Area (or segment of a ROD Area) and it is ready for transition to the LTS program, the transferring cleanup organization and the receiving LTS organization will work together to ensure all preliminary activities have been completed and that the associated documentation is in place.

Appendix A provides an example of the LTS Program transition checklist that will be finalized as part of the LTS program activity. This checklist was developed based on transition criteria from other cleanup sites and the DOE-LM Site Transition Framework, which is the current starting point for DOE-LM to develop its site-specific transition criteria that is used for transferring DOE-EM sites into the DOE-LM Program. Although the transfer of the entire Hanford Site (from the DOE-EM Program to the DOE-LM Program) is not anticipated for several decades, the LTS Program checklist is designed to ensure the land is managed during LTS in a manner consistent with the DOE-LM Program.

In addition to the LTS Program transition checklist, the Hanford LTS Program will develop additional tools to assist in the transition of land from the Hanford cleanup programs to the LTS program (e.g., acceptance criteria and procedures). These tools are described in more detail in Chapter 4.

An interim S&M transition checklist also may be developed for use when the responsibility for interim S&M activities of a particular parcel are transitioned under an interim action ROD to the LTS Program. The interim S&M transition checklist will likely be a subset of the LTS Program transition checklist and focused on specific items related to conducting interim S&M activities. More information regarding interim S&M activities is provided in the next section.

## 2.4 Interim S&M Activities Prior to Cleanup Completion

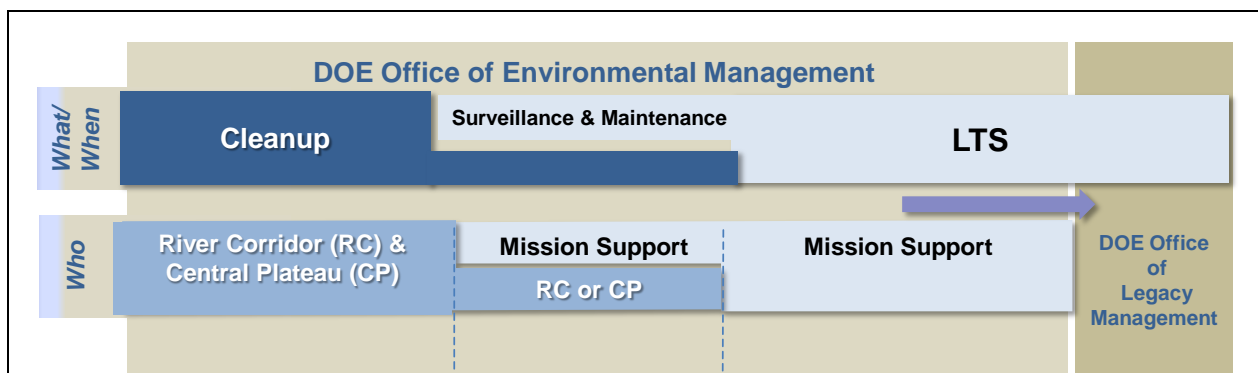
As described in Section 2.1, DOE has committed to significantly reduce the Hanford Site active footprint by 85 to 90 percent by 2015. Active cleanup footprint reduction consists of completing surface waste site cleanup, including facility demolition, and implementation of groundwater remediation systems. Although LTS follows the completion of cleanup (as described in Chapter

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1), interim S&M activities will begin upon completion of the active cleanup to interim action RODs, and prior to the completion of cleanup (see Figure 2-4).

For example, soil remediation of waste sites is being completed in the first parcel of the 100-F/IU-2/IU-6 ROD Area (see Figure 2-1). Although the final ROD has not yet been issued for the 100-F/IU-1/IU-6 ROD Area, this parcel will have been cleaned up to the standards in the interim action RODs. Once cleanup to the interim action ROD is completed, the responsibility to perform interim S&M activities will be transitioned to the LTS Program. The interim S&M activities may include the enforcement of excavation restrictions for some areas, access controls to prevent inappropriate land use, and other interim S&M activities. Although the LTS Program will conduct the interim S&M activities, the cleanup program remains responsible for and will continue to follow, all other CERCLA requirements to reach cleanup completion of the 100-F/IU-1/IU-6 ROD Area (e.g., development of the final remedy ROD, implementation of the final remedy, writing of the final Remedial Action Reports).

**Figure 2-4. Relationship of Cleanup, S&M, and LTS Activities**



The LTS Program will work with the cleanup program to develop the specific schedule for transition of interim S&M activities, to identify the regulatory requirements for the interim S&M activities, and to develop the life-cycle cost estimate for conducting the interim S&M activities.

Following completion of cleanup requirements to the final remedy RODs, ROD Areas will be transitioned to the LTS Program where the land will be managed by DOE in accordance with the Hanford CLUP. Final remedy ROD institutional controls also will be maintained. Furthermore, utilities and infrastructure will be maintained to support completion of other cleanup activities such as groundwater remediation. Chapter 4 provides additional information regarding the LTS Program responsibilities and activities.

### 2.5 Incorporation of Lessons Learned

A number of sites across the country have already completed cleanup and entered long-term stewardship. In preparing this plan, and through previous LTS planning efforts, DOE has

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reviewed and will continue to consider the lessons learned as identified through the experiences at other sites (see Figure 2-5). These sites include other DOE sites, such as Rocky Flats and Fernald (currently being managed by the DOE-LM), as well as DoD sites.

Some of the key lessons learned that support the development of the Hanford LTS Program include the following:

- The importance of feedback from Tribal representatives, advisory boards and regulators.
- The importance to plan and prepare for LTS significantly ahead of the completion of cleanup, working in close partnership with the cleanup program to clearly define the completion of cleanup and ensure a smooth transition to LTS.
- Active, dynamic management of the program is required, particularly to ensure the remedies remain protective over the long-term and that the associated institutional controls remain in place and continue to perform successfully to meet their objectives.
- A well-prepared and comprehensive S&M plan will help to ensure continued protection of human health and the environment.
- Collect and manage documents describing the cleanup decisions and LTS requirements immediately upon completion of cleanup and ensure preservation and accessibility for the long-term.

### **Figure 2-5. Hanford LTS Benchmarking Efforts**

- Review of lessons learned at major DOE-EM closure sites
- Review of DOE-LM policies regarding transition of sites from DOE-EM to DOE-LM
- Review of the Long-Term Surveillance and Maintenance Plans (LTS&M) at major DOE-LM sites
- Interviews of personnel from other DOE sites engaged in LTS activities to identify best practices
- Review of cleanup to LTS transition practices at DoD sites
- Review of studies regarding LTS developed by external organizations

The lessons learned through these benchmarking efforts have served as key input for the development of this LTS Program Plan and were considered in the development of the transition process for land management responsibilities (discussed in Chapter 3) and in the development of the LTS Program responsibilities (described in Chapter 4). Furthermore, the Tribal Nations and Hanford Advisory Board (HAB) have been engaged to provide feedback in the development of the LTS Program Plan itself.

Reflecting the evolving nature of LTS, the Hanford LTS Program will be actively managed and designed to be flexible and adaptable. Areas of continual improvement will be identified, reviewed and evaluated, and incorporated into the LTS Program, as applicable.

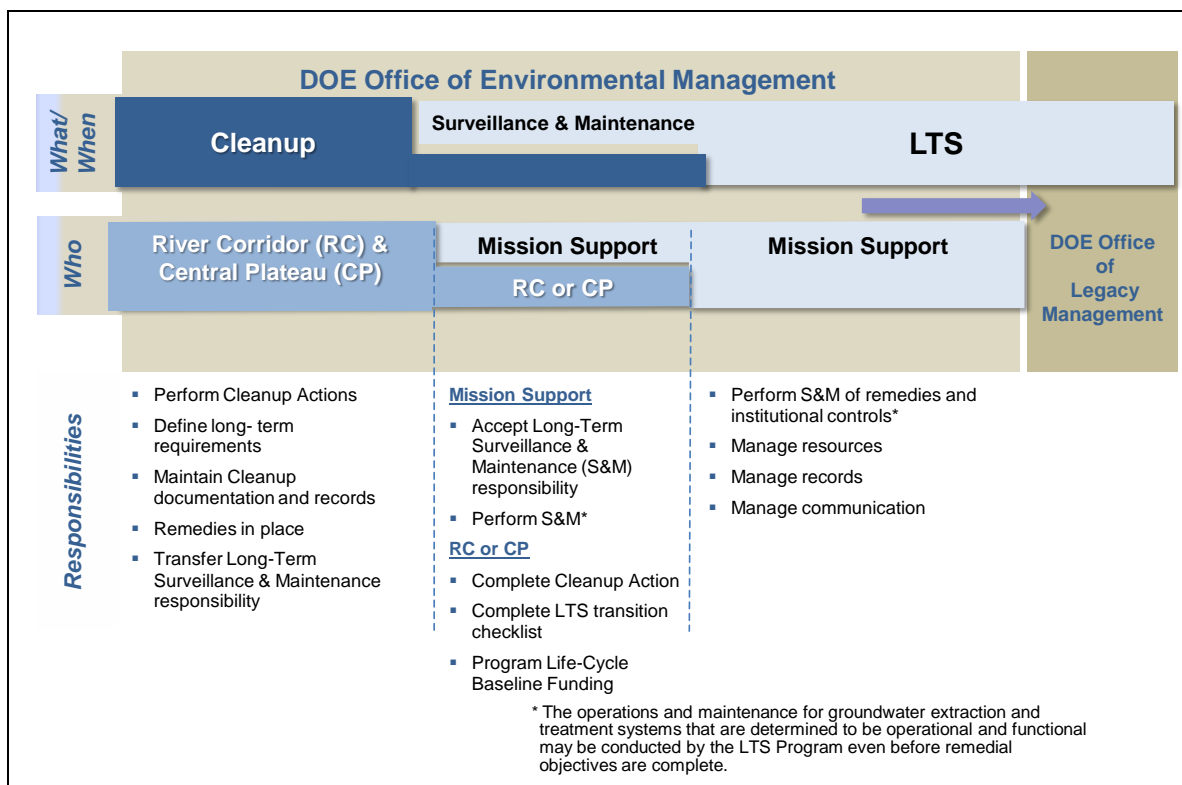
## Chapter 3. Transition of Land Management Responsibility

The transition of land management responsibilities from the cleanup program to the Hanford LTS program is being planned using a graded approach. This chapter provides clarification regarding which program - cleanup or LTS program - is responsible for which of the transition activities, a description of the transition process, and information on the development of a transition schedule.

### 3.1 Cleanup and LTS Program Responsibilities

The responsibilities of the cleanup and LTS programs for the transition process are summarized in Figure 3-1. The cleanup program is responsible for performing the cleanup actions through the regulatory completion of cleanup. This includes developing the final remedy ROD and implementing the remedies, even while the LTS Program may be conducting interim S&M activities. The LTS Program is responsible for the post-cleanup completion requirements (e.g., monitoring remedies, managing resources), as well as interim S&M activities that may be required prior to the development of the final remedy RODs.

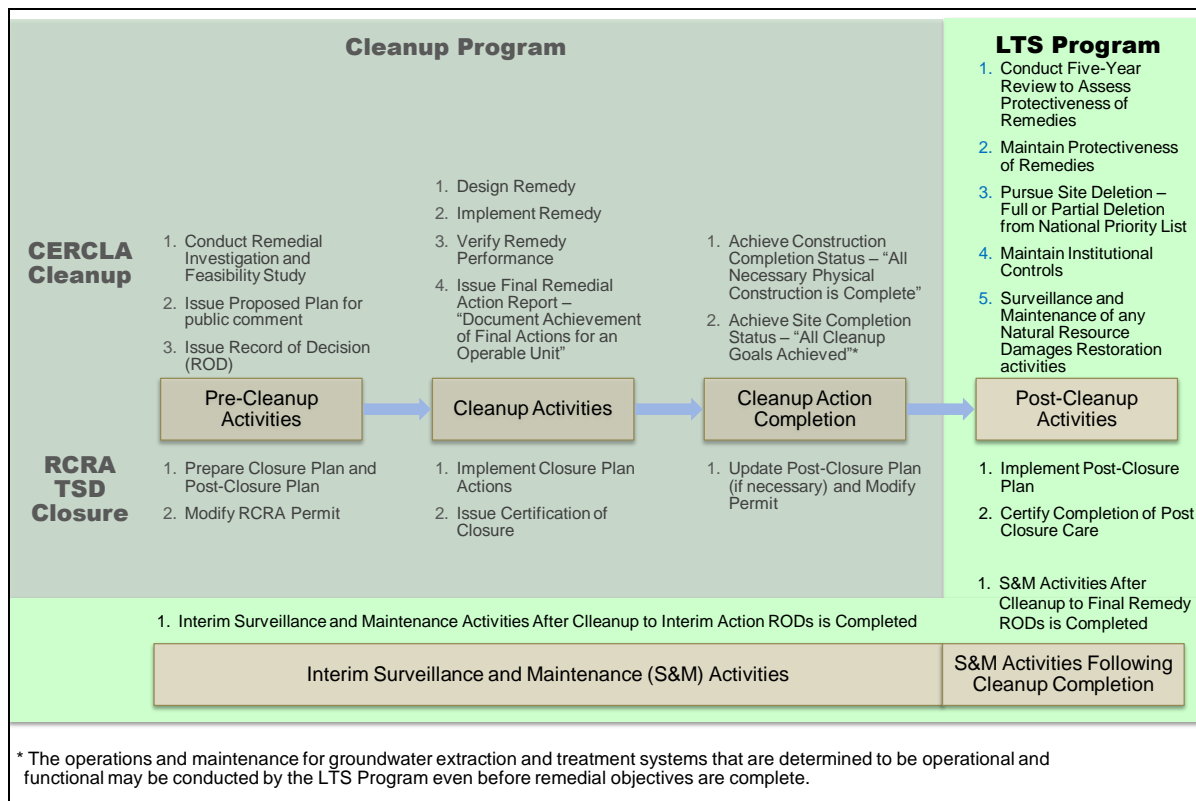
**Figure 3-1. Cleanup and LTS Program Responsibilities During Transition**



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To further clarify the distinction between the cleanup and LTS program responsibilities from a regulatory basis, Figure 3-2 shows the specific steps towards cleanup completion and the transition of each ROD Area to the LTS Program. Figure 3-2 is based on the information first shown in Figure 1-2, but modified to more clearly show the distinction between cleanup activities and LTS activities for interim S&M. And as described in Chapter 2, interim S&M activities for some parcels will begin prior to the development of the final remedy ROD as the active footprint reduction cleanup is completed. The LTS Program will be responsible for conducting those interim S&M activities, as indicated on Figure 3-2.

**Figure 3-2. Responsibilities of the Cleanup and LTS Programs**



## 3.2 Transition Process

The steps for transitioning the responsibilities for interim S&M to the LTS Program include the following:

1. Identification by the cleanup program that active footprint reduction cleanup is complete, per the applicable interim action RODs
2. Identification and analysis of the life-cycle S&M costs
3. Ensuring S&M funding is identified and available including scope definition, resource loading and funding profile.

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4. Completion and sign-off by the cleanup and LTS programs of the interim S&M checklist, which includes the transfer of all information required to conduct S&M and meet the applicable regulatory requirements applicable to the interim action ROD.

When the interim action RODs are complete they will final the steps below for a final remedy ROD.

The steps for transitioning each of the final remedy ROD Areas to the LTS Program include the following:

1. Identification by the cleanup program that cleanup is complete
2. Identification and analysis of the LTS life-cycle costs
3. Ensuring LTS funding is identified and available, including scope definition, resource loading and funding profile.
4. Completion and sign-off by the cleanup and LTS programs of the LTS Program final transition checklist, which includes the transfer of all information required to manage the area for the long-term and meet the applicable regulatory requirements applicable to the final remedy ROD.

### 3.3 Transition Schedule

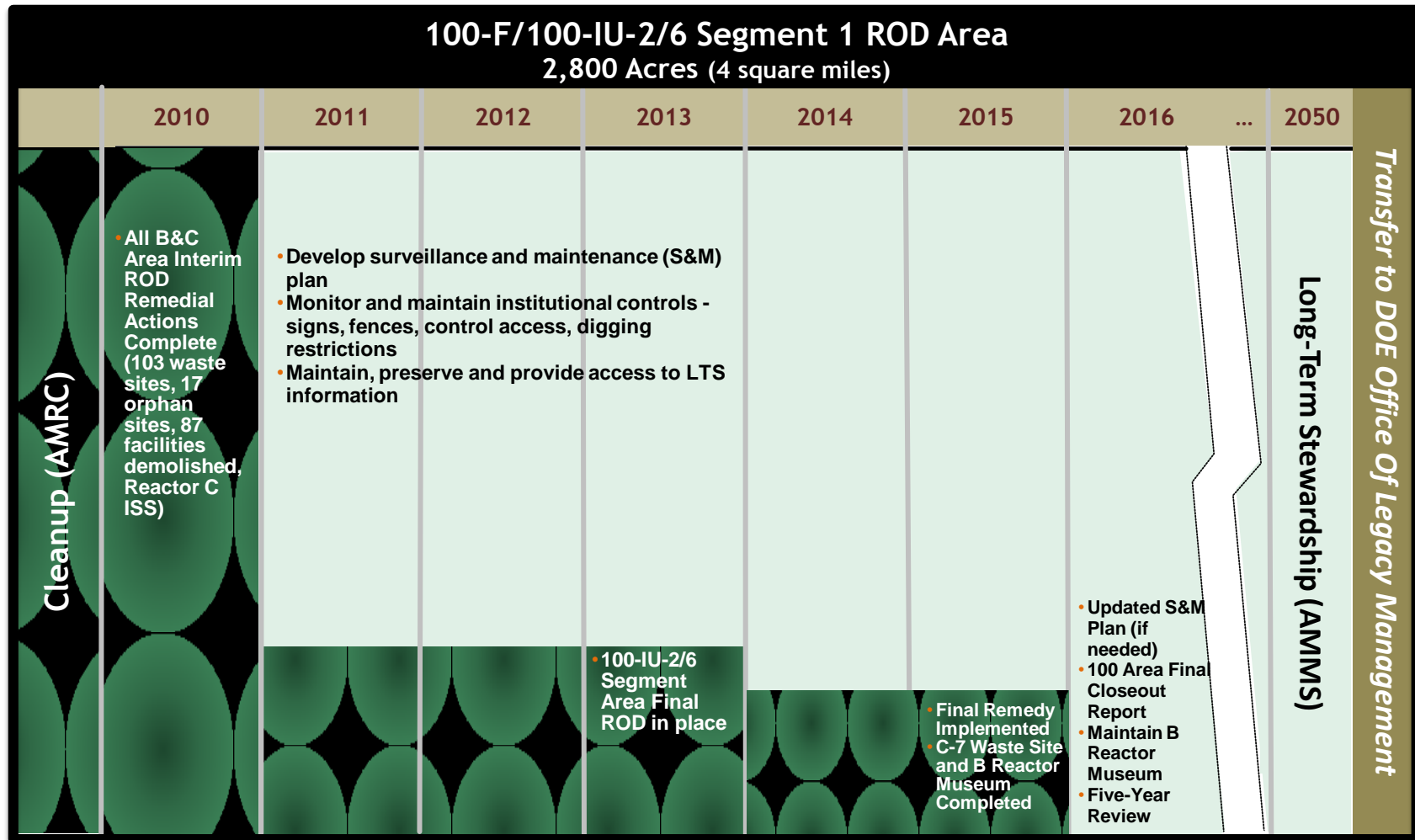
The schedule for the transition of land management responsibility from the cleanup program to the LTS Program is currently under development by the cleanup and LTS programs and it will continue to be updated as cleanup activities progress. Figure 3-3 is an example of the information that will be identified as the schedule is developed. An example of the development of this information for the first parcel likely to transition - the 100-F/IU-2/IU-6 ROD Area is shown in Figure 3-4.

#### **Figure 3-3. Elements of the Transition Schedule to Be Developed By the Cleanup and LTS Programs**

- Parcel description
- List of cleanup decision documents (e.g., Interim or Final RODs)
- Description of the cleanup end state
- Identification of LTS requirements
- Anticipated date of transition of interim S&M activities to the LTS Program (when active footprint reduction will be completed)
- Anticipated date of full transition of land management responsibility to the LTS Program (when cleanup will be completed)
- Life-cycle costs and budget preparation

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Figure 3-4. Likely Schedule of Transition for the First Parcel to Transition to LTS - the 100-F/IU-2/IU-6 ROD Area (Example)



## Chapter 4. LTS Program Implementation

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The Hanford LTS Program will be managed in an active way that enables it to meet the LTS objectives and associated requirements. The LTS Program will ensure the continued protectiveness of the remedies and the environment for those geographical areas of the Hanford Site transitioned to its responsibility, while at the same time, being flexible and adaptable to adjust as lessons are learned, advice is obtained, and as Hanford gains experience in implementing LTS. The LTS Program will be an active component to protect and manage the resources within the framework of the CLUP.

Management of the LTS Program will be the responsibility of the Assistant Manager for Mission Support (AMMS) organization within the DOE Richland Operations Office (DOE-RL) (see Figure 3-1). AMMS executes its LTS responsibilities within DOE-RL through its Site Infrastructure Division and the Realty Office and through the Mission Support Contractor (MSC).

This chapter describes the key activities of the Hanford LTS Program. The activities described in this chapter have been identified based on a review of LTS activities at other sites through the DOE benchmarking efforts. These activities will be implemented using a flow down of requirements from DOE's LTS Program Plan, to internal DOE RIMS procedures, and to the Contractors via prime contract direction and procedures.

### 4.1 Conduct Administrative Activities

Steps will be taken to ensure contractual direction is provided to Hanford prime contractors and procedures (e.g., acceptance criteria and surveillance) developed to institutionalize the LTS Program. This also will include integration of existing site procedures (e.g., safety, budget and finance) required to implement LTS responsibilities and assigned actions.

### 4.2 Conduct S&M of the Remedies and their Institutional Controls

S&M of the remedies and their institutional controls is required to verify that the remedies remain effective, the institutional controls remain in place, and that human health and the environment is protected. It is important to maintain the remedy systems in working condition and conduct regular inspections (if required) to prevent potential problems. An example of such activities is the S&M that is required for the interim safe storage of the reactors. Also, the *Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions* (Institutional Controls Plan) describes institutional controls (ICs) for the current Hanford Site CERCLA response actions. DOE is required to update the Institutional Controls Plan when a new decision document listing institutional control requirements is issued. The Institutional Controls Plan may be revised to include RCRA post-closure ICs.

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The LTS Program will conduct S&M, as required by applicable cleanup decision documents, of the physical remedies and institutional controls to ensure continued protection of human health and the environment. If any NRD restoration projects have been completed, the LTS Program also will conduct any S&M, as required,

The LTS Program will be responsible for ensuring performance of the required S&M activities. The main areas to be addressed under S&M are:

- Maintenance and oversight of the engineered controls, physical controls and institutional controls
- Monitoring the performance of the remedy, which may include operations and maintenance of groundwater extraction and treatment systems that are operational and functional and have not yet met remedial objectives
- Conducting required surveillances and inspections
- Responding to unexpected conditions and emergencies

### 4.3 Conduct S&M of Completed Natural Resource Damages (NRD) Restoration Projects

LTS surveillance and maintenance activities include the monitoring and maintenance of completed NRD restoration projects. The LTS Program will not be responsible for NRD activities that have not been completed.

### 4.4 Conduct Environmental Monitoring and Maintenance of the Remedies

LTS activities include environmental monitoring regarding the performance of the remedies, if such monitoring is stipulated in the cleanup decision documents. Such monitoring is conducted to verify that the remedies remain effective and that contaminant migration is prevented. Such activities may include the monitoring of ecological receptors (e.g., wildlife, vegetation), as prescribed by the remedies in the cleanup decision documents or if required by federal and state requirements and regulations for releases and the potential transport of radioactive material and hazardous contaminants.

### 4.5 Protect and Manage Site Resources

The Hanford Site includes significant resources (endangered, protected, and listed species) that are protected and managed following applicable federal and state laws, executive orders, Tribal treaty rights, DOE orders, CLUP, and Hanford Site procedures.

Site resources are managed and protected at the Hanford Site through the use of Resource Management Plans (RMPs) and Area Management Plans (AMPs) within the framework of the CLUP (see Section 1.2). These resource management plans have been developed to protect

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and provide the policies, goals, and objectives for the management of the Site's biological, natural, and cultural resources. These plans address the ongoing surveillance, protection, and controlled use of the Site's resources. The LTS Program will be an active component of the CLUP ongoing program to work with the resource and environmental monitoring programs to ensure the ongoing protection of the Site resources.

### 4.6 Manage LTS Information

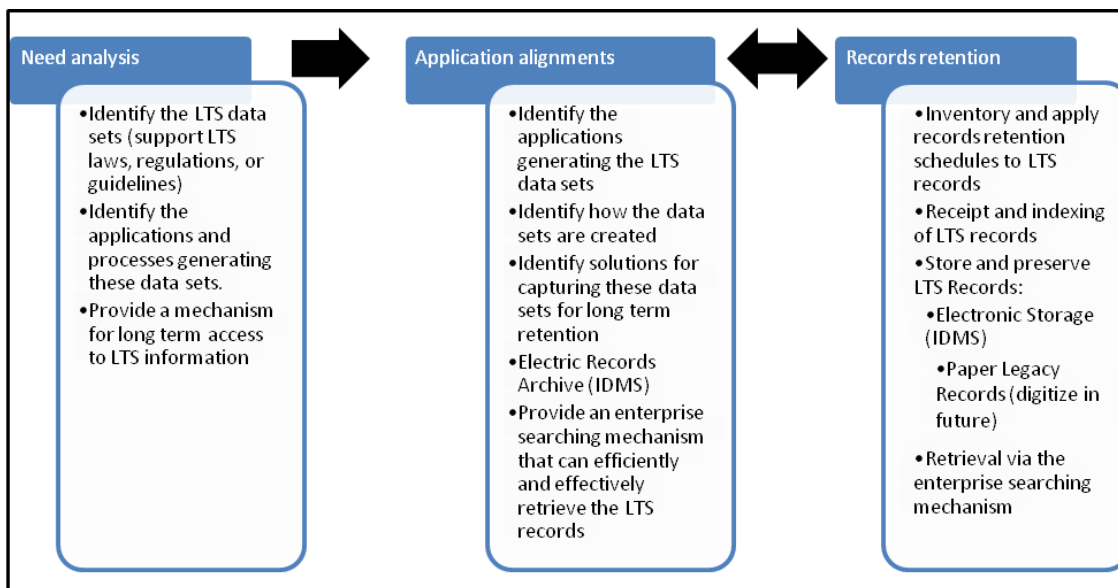
Information management is a critical component of LTS that is required to ensure that the LTS Program will have ready access to specific and accurate information about the Site, the cleanup activities, and the associated LTS requirements, including its regulatory obligations. It is also important for LTS information to be accessible to those who live and work in the surrounding communities and to those who are responsible for community planning and development.

The LTS Program will help to ensure that the requisite information generated during the cleanup mission, necessary to support LTS and required under the regulatory process, is preserved and available for the future in a timely, cost-effective, and understandable manner. At the Hanford Site, there has been and continues to be a massive amount of data generated in support of the cleanup effort. Also, one of the key lessons learned from LTS experiences at other sites is the importance of maintaining and preserving LTS information in an accessible format. To address these issues, the LTS Program will take the following steps:

- The Transition Checklist will include the transition of the information necessary to support LTS from the cleanup program to the LTS Program. (See the draft Transition Checklist in Appendix A.)
- DOE-RL will develop a *Hanford Long-Term Stewardship Information Management Plan* (LTS IM Plan) to describe how the Hanford Site will maintain remediation and post-cleanup data and records management via multi-media, data projection, data access support, data quality objectives, maintenance of the baseline of critical information, and data archival and retention management.

The LTS IM strategic approach is shown in Figure 4-1 and is based on the fact that a significant amount of LTS-related information is currently managed in multiple media. The LTS IM Plan will support the ability of current and future generations to access and understand the Hanford Site's LTS information, based on the approach shown in Figure 4-1, and will be integrated with other Hanford Site IM strategic plans. The LTS IM Plan will include a needs analysis, address the alignment of applications that contain LTS information, describe the management of LTS records at the Hanford Site and include the plans for developing a search engine that allows access to all pertinent Site data.

**Figure 4-1. LTS Information Management Strategic Approach**



### 4.7 Conduct CERCLA 5-Year Reviews

Conducting a CERCLA 5-year review is required to assess the protectiveness of remedial actions where hazardous substances, pollutants, or contaminants are left onsite above levels that allow for unlimited use and unrestricted exposure. The reviews do not reconsider remedial cleanup decisions; it is an evaluation of the implementation and performance of the current cleanup strategy to determine if the remedy is or will be protective.

CERCLA requires that the lead agency review all remedial actions taken that resulted in hazardous substances, pollutants, or contaminants remaining at a site above levels that allow for unlimited use and unrestricted exposure, no less often than every five years after the initiation of the selected remedial action. The review will determine if the measures taken are still successful in protecting the worker, the public and the environment. LTS activities, primarily the ICs, are one component to be considered in the five-year review; the five-year review also evaluates current and future protectiveness relative to remedial actions that are ongoing.

The review may conclude that the remedy is protective and that no further action is necessary. Alternatively, it may conclude that further evaluation is needed, may recommend certain actions to improve the efficiency of a remedy, or may recommend changes in the remedy. This review process can also provide a forum for introducing new information and/or how changes in assumptions will be managed in the future. If cleanup decisions are required to be revisited, the applicable regulatory process is to be followed.

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DOE will conduct the CERCLA five-year reviews and submit the reports to EPA for its review of the protectiveness determinations made by DOE.

The scope of the review is limited and does not include all of the activities covered by the TPA. In addition to CERCLA, the TPA addresses regulated RCRA units, as well as, past practice units that are regulated under RCRA and/or CERCLA. Operable units listed as past-practice units under CERCLA are covered in this five-year review, as well as those past-practice units that are shown in the TPA as being under RCRA but are being remediated under CERCLA. Active treatment, storage, or disposal units regulated under RCRA, such as the tank farms, are not part of this review.

The first five-year review was completed in 2001 by the EPA. The second was completed by DOE in 2006. The LTS Program will work with the DOE-RL Environmental Management Division to conduct the five-year review (the next one is scheduled for completion in 2011), which will include the review of LTS components of the remedies, such as existing institutional controls in place to prevent exposure to the public and the environment.

### 4.8 Prepare for Emergencies, Contingency Planning, and Corrective Actions

LTS activities include responding to unexpected conditions and emergency situations. Examples of such situations include the deterioration of a physical control beyond predicted levels, extreme weather conditions and the discovery of previously unidentified sources of contamination.

Emergency measures are the actions DOE will take in response to unusual damage or disruption of land in LTS that threatens or compromises safety or security. Certain circumstances may arise that requires implementation of contingency actions.

Site inspections, monitoring, and maintenance activities conducted as part of the S&M activities are designed to identify potential problems before they develop into a need for corrective action. However, in the unlikely case that extreme natural events, vandalism, or unanticipated events result in a need for corrective actions, DOE will notify the Environmental Protection Agency (EPA), the Washington Department of Ecology (WDOE), and other affected parties as soon as an emergency situation is known to exist.

Also, DOE will notify the appropriate regulatory agencies if regulatory thresholds are exceeded. Releases of hazardous substances, if any, in excess of quantities reportable under CERCLA will be immediately reported to the National Response Center and EPA. Spills or discharges of hazardous substances or dangerous wastes to the environment will be reported to EPA and/or the state in accordance with applicable state or federal law.

DOE's response measures to such events may include modifying processes, such as making adjustments to the type and frequency of monitoring and maintenance activities; modifying

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existing controls; establishing new controls; and/or initiating new cleanup actions. If applicable, DOE will follow the appropriate approved regulatory process for its response measures.

### 4.9 Manage Post-Cleanup Completion Infrastructure

Right-sizing cost of programs and maintaining post-cleanup completion infrastructure is needed to ensure sufficient access and support remains for S&M activities. Such infrastructure includes access roads, remaining facilities, services and utilities (e.g., emergency response, power, water). Current land management and potential future land uses will be addressed through the framework of the CLUP.

The LTS Program will ensure that the minimum infrastructure required to support its activities will be provided and maintained. Current land management and potential future land uses will be addressed through the framework of the CLUP. The LTS program will assist in the strategic planning process for Site infrastructure to ensure the necessary and sufficient infrastructure is available to support LTS.

### 4.10 Ensure the Safety and Health of LTS Workers

The safety and health of LTS workers must be protected. Just as in the cleanup program, it is important to provide a safe working environment for all workers and to maintain high standards of performance that comply with all applicable regulations and requirements for worker protection. The Integrated Safety Management System (ISMS) at the Hanford Site will extend to all LTS activities.

### 4.11 Provide Quality Assurance

Quality assurance for environmental monitoring activities includes programmatic and overall project quality assurance. Records generated as a result of environmental monitoring will be maintained as quality assurance records. Field sampling forms, analytical data, equipment calibration records, and validation documentation records are all considered quality assurance records and will be maintained in accordance with the requirements of DOE procedures.

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## 4.12 Manage and Budget Necessary Funding

Managing the LTS costs and obtaining the budget necessary to fund LTS are important LTS activities. DOE will need to prepare estimates and request funding for LTS in future years after cleanup is completed.

DOE will request the necessary funds to conduct LTS activities: to maintain the remedies specified in the RODs; to ensure continued protection of human health and the environment; and to manage the Site's resources through the DOE budget process. DOE will be appropriated such funds as part of its annual Congressional appropriation.

It is important to note that during the transition of ROD areas of land from the cleanup program to the LTS Program, the respective organizations will be responsible for their particular transition activities.

LTS cost estimates will be developed by the cleanup programs and updated by the LTS Program after cleanup completion is achieved.

## 4.13 Interface with Other Hanford Programs

Interfacing with other Hanford programs will be performed to ensure a smooth transition from cleanup to LTS. In addition, interfacing with Tribal Nations, the EPA, WDOE, state and local governments, and stakeholders will be a key activity.

One of the key lessons learned through DOE's review of LTS experiences at other sites (see Section 2.5) is for the LTS Program to closely work with the cleanup program to clearly define the completion of cleanup and plan and schedule a smooth transition from cleanup to LTS. The LTS Program will work closely with the cleanup program to develop the schedule for transition of areas of the Hanford Site, including interim S&M activities.

To further support a smooth transition from the cleanup program to the LTS Program, the LTS Program will develop the necessary associated RIMS procedures regarding the plan, schedule and criteria for transitioning and accepting the regions of land. Full transition to the LTS Program will occur upon completion of the cleanup to the final remedy RODs.

The LTS Program also will provide feedback to the remaining cleanup programs regarding experiences in LTS implementation as the LTS Program gains experience.

Other interfaces with the cleanup program will include working with the groundwater program to define which organization will be responsible for the long-term treatment and monitoring requirements and with the environmental monitoring program to define which organization will be responsible for specific monitoring responsibilities. The LTS Program also will be working closely with the cleanup program to conduct the CERCLA Five-Year Reviews.

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### 4.14 Interface with External Entities

Interfacing with external entities that operate at the Hanford Site include the U.S. Fish and Wildlife Service (USFWS), US Ecology, Energy Northwest, Bonneville Power Administration (BPA), and the Laser Interferometer Gravitational Wave Observatory (LIGO) will also be a key activity. Access agreements, easements, institutional controls, and land-use restrictions are a vital component of the post-cleanup requirements as well as any existing LTS type requirements that are included in any existing permits, agreements or leases. The LTS Program will be responsible to ensure that LTS requirements are included in future real estate instruments (e.g., lease, license, permit and lease) with external entities located on the Hanford Site.

The USFWS is responsible for the management of a significant portion of the Hanford Reach National Monument (National Monument). The National Monument encompasses approximately 789 km<sup>2</sup> (195,000 ac), of which approximately 672 km<sup>2</sup> (166,000 ac) are currently managed by the USFWS as the Saddle Mountain National Wildlife Refuge. The Washington State Department of Fish and Wildlife administers 3 km<sup>2</sup> (800 acres) of the National Monument through an agreement with DOE. DOE administers the remaining acreage and currently retains primary ownership or control of all acreage. Any LTS responsibilities resulting from DOE cleanup within the area of the National Monument are the responsibility of the DOE through the LTS Program, unless otherwise agreed to with the USFWS.

Energy Northwest operates the Columbia Generating Station, a commercial nuclear power plant located north of the 300 Area, and is a joint operating agency of the State of Washington. Any LTS responsibilities resulting from DOE cleanup with the proximity of the power plant will be the responsibility of the DOE through the LTS Program.

Bonneville Power Administration (BPA) is responsible for the operation of the electric power substations and transmission lines that cross the Hanford Site and for all operations, maintenance and new construction for their systems that are on the Hanford Site. BPA carries out these operations under a permit from DOE, which will be in effect until terminated. Any LTS responsibilities resulting from DOE cleanup with the proximity of the substations and transmission lines will be the responsibility of the DOE through the LTS Program.

LIGO is an on-site facility designed to observe gravitational waves of cosmic origin. The LIGO houses laser interferometers, consisting of mirrors suspended at each of the corners of a gigantic L-shaped vacuum system, measuring 4 km (2.5 mi) on a side. LIGO is operated by the California Institute of Technology and the Massachusetts Institute of Technology for the National Science Foundation. Any LTS responsibilities resulting from DOE cleanup within the proximity of LIGO will be the responsibility of the DOE through the LTS Program.

US Ecology, Inc. operates a commercial, Nuclear Regulatory Commission (NRC)-licensed low-level waste disposal facility. The land is under lease from DOE to the State of Washington and subsequently sub-leased to US Ecology, Inc. The disposal facility accepts waste from two state agreements: the Northwest Compact (Washington, Idaho, Oregon, Montana, Wyoming, Utah,

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Alaska, and Hawaii) and the Rocky Mountain Compact (Colorado, Nevada, and New Mexico). These agreements were established to manage radioactive waste from nuclear power plants and other commercial facilities within the associated regions. This permitted facility will continue to operate and upon completion of operations, closed-out in accordance with its lease and commercial low-level waste state licensing requirements.

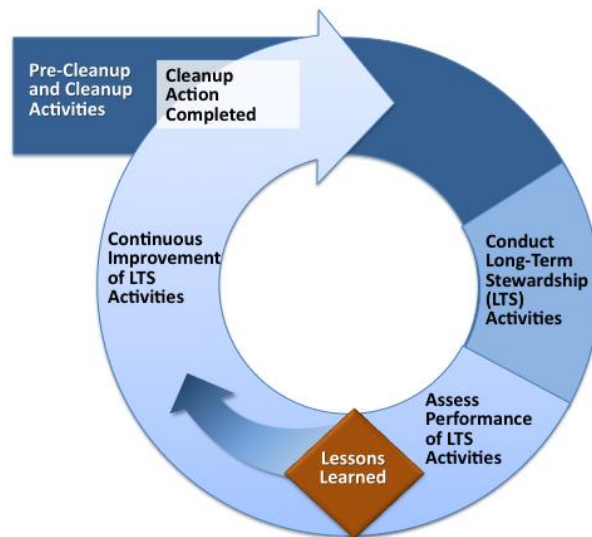
### 4.15 Improve the LTS Program Continuously

The Hanford LTS Program is a long-term program that is still in its infancy stage. DOE will build the program to be dynamic, active and flexible to address issues as they arise and incorporate lessons learned (see Figure 4-2). LTS activities will include a continual evaluation of the performance of LTS and of ways to improve the LTS process, including the possibility of using new, more cost-effective technologies.

Such improvements will be identified through efforts such as continuing benchmarking efforts with other DOE sites. This will include DOE-

LM sites, and other federal government sites (e.g., Department of Defense (DoD) sites), as well as incorporating lessons learned from experience at the Hanford Site. DOE anticipates updating this plan as the Program gains experience in conducting LTS activities, increasing its knowledge base from national and international resources, and as the LTS requirements from the cleanup program continue to be defined.

**Figure 4-2. Dynamic Nature of the LTS Program**



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## Appendix A. LTS Program Transition Checklist

### **LTS Program Transition Checklist (EXAMPLE)**

#### Section 1. Site Assessment

- Has there been an environmental site assessment conducted for this area and have the results been documented?
- Did the results of the assessment indicate the presence of sites that needed further investigation and/or cleanup?

#### Section 2. Cleanup History - Clean-up Analysis & Plans (the "Why")

- Have the completed cleanup steps been documented as required and does the documentation adequately explain both the cleanup decisions and the resulting actions?

#### Section 3. Cleanup End State - Conditions at Cleanup Completion Turnover (the "What")

- Is the condition of the following components controlling post-cleanup risk and/or long-term remediation actions adequately validated and documented?
- Are the remaining potential contamination risks adequately identified and located using closure and sampling reports, the Waste Information Data System (WIDS) and other databases?
- Is the TPA Administrative Record complete and retrievable?

#### Section 4. Controls and Post-Cleanup Requirements - Post-Cleanup Controls (the "How")

- Have the following set of controls and post-cleanup requirements been identified:
  - Engineered barriers and physical controls?
  - Institutional controls?
  - Performance monitoring?
  - Waste disposal programs?
  - Contingency plans?
  - Permits?
  - Emergency procedures?
  - Regulatory reviews and oversight?
- Have the long-term requirements and commitments made by DOE regarding the property been identified (MOAs, NEPA RODs)?
- Have the required post-restoration NRDA activities been identified, if any?
- Have the post-cleanup activities been identified in the baseline and a basis of estimate developed?

#### Section 5. Readiness for Potential Reassignment or Reuse - Property Preparatory Actions

- Have the determinations of prior hazards (e.g., PCBs, asbestos, USTs) been made?

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- Have all real property records been identified, located, and are in good order?
- Have restrictions on the property been codified appropriately?
- Has the status of DOE's NRDA liability for this property been documented?
- Have the resource estimates for future real property management been identified and properly documented?
- Are previous Site characterization data and NEPA documentation available?

### Section 6. Infrastructure and Essential Services - Other Preparatory Actions

- Have the long-term needs for infrastructure been evaluated?
- Have abandoned structures been identified, located, and dispositioned (e.g., ancillary structures, other misc. equipment, fence, litter)?
- Have the life-cycle resource estimates for the operation and maintenance of infrastructure systems been identified and properly documented?
- Have the requirements for security and emergency services been identified?
- Have the life-cycle resource estimates for security and emergency services been identified and properly documented?
- Have emergency preparedness actions been identified, if an emergency response plan is required?
- Have the life-cycle resource estimates for emergency response services been identified and properly documented?
- Has the consultative process for each Tribal Nation been identified and followed?

### Section 7. Resources - Transitioning Management

- Is information retrievable and adequate on the biological resources for this land parcel?
- Have future biological resource management requirements been identified?
- Have cost estimates for future biological resource management been developed?
- Is adequate protection provided for sensitive cultural resource information?
- Is additional cultural resource information retrievable and adequate?
- Have future cultural resource management requirements been identified?
- Have cost estimates for future cultural resource management been developed?
- Is information retrievable and adequate on the natural resources for this land parcel?
- Have future natural resource management requirements been identified?
- Have cost estimates for future natural resource management been developed?
- Is information available regarding previous sitewide monitoring activities that pertain to this parcel of land?
- Have future requirements for environmental monitoring on this parcel been identified?
- Have cost estimates for future monitoring been developed?

### Section 8. Business and Administration - Tying it All Together

- In addition to the information captured above, are the records regarding the following complete, indexed properly, and managed properly: contract information, personnel and medical, litigation and financial information system?

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- Are the records properly scheduled?
- Have cost estimates for future record management been developed?
- Has the baseline for managing the property been identified and estimated?